

### **Abstract**

The present invention relates to single and dual reporter luminescence assays utilizing reagents to quench an optical, e.g., an enzyme-mediated luminescence, reaction. In one embodiment of the invention, a reagent is added to an assay which  
5 selectively quenches a first enzyme-mediated luminescence reaction without affecting a subsequent distinct enzyme-mediated luminescent reaction(s). An assay kit containing one or more selective quench reagents, and compositions comprising the quench reagent(s), are also provided.